

References Cited

- Arimoto, R., Duce, R. A., Savoie, D. L., Prospero, J. M., Talbot, R., Cullen, J. D., Tomza, U., Lewis, N. F., and Ray, B. J. (1996). Relationships among aerosol constituents from Asia and the North Pacific during PEM-West A, *J. Geophys. Res.*, 101: 2011-2023.
- Ayers, G.P., S.A. Penkett, R.W. Gillett, B. Bandy, I.E. Galbally, C.P. Meyer, C.M. Elsworth, S.T. Bentley, and B.W. Forgan. (1996). The annual cycle of peroxides and ozone in marine air at Cape Grim, Tasmania. *J. Atmos. Chem.* 23, 221-252.
- Becker, K.H., K.J. Brockman, and J. Bechara (1990). Production of hydrogen peroxide in forest air by reaction of ozone with terpenes. *Nature* 346, 256-258.
- Carmichael, G. R., Zhang, Y., Chen, L.-L., Hong, M.-S., and Ueda, H. (1996). Seasonal Variation of Aerosol Composition at Cheju Island, Korea, *Atmos Environ.*, 30, 2407-2416.
- Chen , L-L., G.R. Carmichael, M.-S. Hong, H. Ueda, S. Shim, C.H. Song, Y.P. Kim, R Arimoto, J. Prospero, D. Savoie, K. Murano, J.K. Park, H.-G Lee, and C Kang (1997) Influence of continental outflow events on the aerosol composition at Cheju Island, South Korea, *J. Geophys Res.* 102 28551-28574.
- Choularton, T., et al., (1997) The Great Dun Fell cloud experiment 1993: an overview, *Atmos. Environ.*, 31, 2393-2405.
- Daum, PH., T.J. Kelly, S.E. Schwartz and L. Newman (1984). Measurements of the chemical composition of stratiform clouds, *Atmos. Environ.* 18, 2671-2684.
- Daum, P.H., L.I. Kleinman., A.J. Hills, A.L.Lazrus, A.C.D. Leslie, K. Busness, K. Boatman (1990). Measurement and interpretation of concentrations of H_2O_2 and related species in the upper midwest during summer, *J. Geophys. Res.* 95, 9,857-9,871.
- Enders, G., R. Dlugi, R. Steinbrecher, B. Clement, R. Daiber, J. van Eijk, S. Gab, M. Haziza, G. Helas, U. Herrmann, M. Kessel, J. Kesselmeier, D. Kotzias, K. Kourtidis, H.H. Kurth, R.T. McKillen, G. Roider, W. Schurmann, U. Teichmann, and L. Torres (1992). Biosphere / Atmosphere interactions, Integrated research in a European coniferous forest ecosystem. *Atmos Environ.* 26A, 171-189.
- Fels, M. and W. Junkermann (1994). The occurrence of organic peroxides in air at a mountain site. *Geophys. Res. Lett.* 21, 341-344.
- Gäb, S., W.V. Turner, S. Wolff, K.H. Becker, L. Ruppert, and K.J. Brockmann. (1995). Formation of alkyl and hydroxyalkyl hydroperoxides on ozonolysis in water and air. *Atmos. Environ.* 29, 2401-2407.
- Gurciullo, C., B. Lerner, H. Sievering, and S.N. Pandis (1999). Heterogeneous sulfate production in the remote marine environment: Cloud processing and sea salt particle contributions, *J. Geophys,Res.*, 104, 21719-21731.
- Heikes, B., M. Lee, D. Jacob, R. Talbot, J. Bradshaw, H. Singh, D. Blake, B. Anderson, H. Fuelberg, and A.M. Thompson (1996). Ozone, hydroperoxides, oxides of nitrogen, and hydrocarbon budgets in the marine boundary layer over the South Atlantic. *J. Geophys. Res.* 101, 24221-24234.
- Heikes, B.G., G.L. Kok, J.G. Walega, and A.L. Lazrus (1992). H_2O_2 , O_3 and SO_2 measurements in the lower troposphere over the eastern United States during Fall. *J. Geophys. Res.* 92, 915-931.
- Hellpointner, E. and S. Gäb (1989). Detection of methyl, hydroxymethyl and hydroxyethyl

peroxides in air and precipitation. *Nature* 337, 631-634.

- Hering, S.V. and S.K. Friedlander (1982). Origins of aerosol sulfur size distributions in the Los Angeles Basin, *Atmos. Environ.*, 16, 2647-2656.
- Hewitt, C.N. and G.L. Kok (1991). Formation and occurrence of organic peroxides in the troposphere, Laboratory and field observations. *J. Atmos. Chem.* 12, 181-194.
- Jacob, D.J., L.W. Horowitz, J.W. Munger, B.G. Heikes, R.R. Dickerson, R.S. Artz, and W.C. Keene (1995). Seasonal transition from NO_x - to hydrocarbon-limited conditions for ozone production over the eastern United States in September. *J. Geophys. Res.* 100, 9,315-9,324..
- Kim, Y. P., Lee, J. H., Baik, N. J., Kim, J. Y., Shim, S.-G., and Kang, C.-H. (1998). Summertime characteristics of aerosol composition at Cheju Island, Korea, *Atmos. Environ.*, 32: 3905-3915.
- Kleinman, L.I., P.H. Daum, P. Klotz, Y.-N. Lee, L.J. Nunnermacker, S.R. Springston, J. Weinstein-Lloyd, L. Newman (2000) Ozone Production in the Phoenix Urban Plume, *Symposium on Atmospheric Chemistry Issues in the 21st Century, 80th Annual AMS Meeting*, Long Beach, CA January 2000
- Kleinman, L.I. (1991) Photochemical formation of peroxides in the boundary layer. *J. Geophys. Res.* 91, 10889-10904.
- Kleinman, L.I., P.H. Daum, Y.-N. Lee, J.H. Lee, L.J. Nunnermacker, S.R. Springston, L. Newman, J. Weinstein-Lloyd, and S. Sillman. (1997). Dependence of ozone production on NO and hydrocarbons in the troposphere. *Geophys. Res. Lett.* In Press.
- Kok, G.L., K. Thompson, A.L. Lazarus, and S.E. McLaren (1986). Derivatization technique for the determination of peroxides in precipitation. *Anal. Chem.* 58, 1,192-1,194. .
- Laj, P., S. Fuzzi, M.C. Facchini, G. Orsi, A. Berner, C. Kruisz, W. Wobrock, A. Hallberg, K.N. Bower, M.W. Gallagher, K.M. Beswick, R.N. Colville, T.W. Choularton, P. Nason, and B. Jones (1997a). Experimental evidence for in-cloud production of aerosol sulfate, *Atmos. Environ.*, 31, 2503-2514.
- Laj, P., S. Fuzzi, M.C. Facchini, J. A. Lind, G. Orsi, M. Preiss, R. Maser, W. Jaeschke, E. Seyffer, G. Helas, K. Acker, W. Wieprecht, D. Moller, B.G. Arends, J.J. Mols, R.N. Colville, M.W. Gallagher, K.M. Beswick, K.J. Hargreaves, R.L. Storeton,-West (1997b). Cloud processing of soluble gases, *Atmos. Environ.*, 31, 2589-2598.
- Lazarus, A.L., G.L. Kok, J.A. Lind, S.N. Gitlin, B.G. Heikes, and R.E. Shetter (1986). Automated fluorometric method for hydrogen peroxide in air. *Anal. Chem.* 58, 594-597.
- Lee, J.H., I.N. Tang, and J.B. Weinstein-Lloyd. (1990). Nonenzymatic method for the determination of hydrogen peroxide in atmospheric samples. *Anal. Chem.* 62, 2381-2384.
- Lee, J.H., Y. Chen and I.N. Tang (1991) Heterogeneous loss of gaseous H_2O_2 in an atmospheric air sampling system, *Environ. Sci. Technol.*, 25, 339-342.
- Lee, J.H., D.F. Leahy, I.N. Tang, and L. Newman (1993). Measurement and speciation of gas phase peroxides. *J. Geophys. Res.* 98, 2,911-2,915.
- Lee, J.H., I.N. Tang, J.B. Weinstein-Lloyd, and E.B. Halper. (1994). An improved nonenzymatic method for the determination of gas-phase peroxides. *Environ. Sci. Technol.* 28, 1,180-1,185.
- Lind, J.A., A.L. Lazarus, and G.L. Kok (1987). Aqueous phase oxidation of sulfur(IV) by hydrogen peroxide, methyl hydroperoxide and peroxyacetic acid. *J. Geophys. Res.* 92,

4171-4177.

- Lind, J.A. and G.L. Kok (1994). Correction to "Henry's Law determinations for aqueous solutions of hydrogen peroxide, methyl hydroperoxide and peroxyacetic acid" by John A. Lind and Gregory L. Kok. *J. Geophys. Res.* 99, 21119
- Macdonald, A.M., K.G. Anlauf, C.M. Banic, W.R. Leitch, and H.A. Wiebe (1995). Airborne measurements of aqueous and gaseous hydrogen peroxide during spring and summer in Ontario, Canada. *J. Geophys. Res.* 100, 7253-7262.
- Martin, L.R.. Aqueous S(IV) oxidation revisited (1994). In *Environmental Oxidants*, J.O. Nriagu and Simmons, Eds., J. Wiley, NY.
- Martin, L.R. and D.E. Damschen (1981). Aqueous oxidation of sulfur dioxide by hydrogen peroxide at low pH. *At. Environ.*, 15, 1615-1621.
- Nunnermacker, L.J., J.B. Weinstein-Lloyd, P.H. Daum, L.I. Kleinman, Y.-N. Lee, S.R. Springston, P.J. Klotz, L. Newman, J. Hubbe, V. Morris, G. Neuroth, P. Hyde (2000) Trace Gas Measurements in Phoenix, AZ, , *Symposium on Atmospheric Chemistry Issues in the 21st Century, 80th Annual AMS Meeting*, Long Beach, CA January 2000
- O'Sullivan, M. Lee, B.C. Noone and B.G. Heikes, Henry's Law constant determinations for hydrogen peroxide, methyl hydroperoxide, hydroxymethyl hydroperoxide, ethyl hydroperoxide.and peracetic acid (1996). *J. Phys. Chem.* 100, 3241-3247.
- O'Sullivan, D.W., B.G. Heikes, M. Lee, W Chang., G. Gregory, D. Blake, and G. Sachse. (1999) The distribution of hydrogen peroxide and methyl hydroperoxide over the Pacific and South Atlantic Oceans, *J. Geophys., Res.* 104, 5635-5644.
- Penkett, S.A., B.M.R. Jones, K.A. Brice, and A.E.J. Eggleton (1979). The importance of atmospheric ozone and hydrogen peroxide in oxidizing sulfur dioxide in cloud and rain water. *Atmos. Environ.* 13, 123-137.
- Sievering, H., J. Boatman, J. Galloway, W. Keene, Y. Kim, M. Luria, and J. Ray. 1981. Heterogenous sulfur conversions in sea-salt aerosol particles: the role of aerosol water content and size distribution, *Atmos. Environ. A*, 25, 1479-1487.
- Sievering, H.B. Lerner, J. Slavich, J. Anderson, M. Posfai and J. Cainey (1999), O₃ oxidation of SO₂ in sea-salt aerosol water: Size distribution of non-sea-salt sulfate during the first Aerosol Characterizatiom Experiment (ACE 1), *J. Geophys,Res.*, 104, 21707-21717.
- Sillman, S., D. He, M. Pippin, P.H. Daum, J.H. Lee, L. Kleinman, and J. Weinstein-Lloyd (1998). Model correlations for ozone, reactive nitrogen and peroxides for Nashville in comparison with measurements, Implications for O₃-NO_x-hydrocarbon chemistry. *J. Geophys. Res.*, 103, 22,361-22,373.
- Sillman, S (1995). The use of NO_y, H₂O₂ and HNO₃ as indicators for ozone-NO_x-hydrocarbon sensitivity in urban locations. *J. Geophys. Res.* 100, 14,175-14,188.
- Slemr, F. and H.G. Tremmel (1994) Hydroperoxides in the marine troposphere over the Atlantic Ocean, *J. Atmos. Chem*, 19, 371-404.
- Staffelbach, T.A., and GL. Kok (1993). Henry's Law constants for aqueous solutions of hydrogen peroxide and hydroxymethyl hydroperoxide, *J. Geophys Res.*, 98, 12713-12717.
- Thomson, A.M., J.E. Johnson, A.L. Torres, T.S. Bates, K.C. Kelly, E. Atlas, J.P. Greenberg, N.M. Donohue, S.A. Yvon, E.S. Saltzman, B.G. Heikes, B.W. Mosher, A.A. Shashkov and V.I. Yegenov (1993) Ozone observations and a model of marine boundary layer photochemistry during SAGA-3, *J. Geophys. Res.*, 98, 16955-16968.
- Tremmel, H.G., W. Junkermann, and F. Slemr (1994). Distribution of organic peroxides during

- aircraft measurements over the northeastern United States. *J. Geophys. Res.* 99, 5,295-5,307.
- Watkins, B.A., D.D. Parrish, M. Trainer, R.B. Norton, J.E. Lee, F.C. Fehsenfeld, and B.G. Heikes, (1995a) Factors affecting the concentration of gas phase hydrogen peroxide during the summer at Niwot Ridge, Colorado, *J. Geophys. Res* 100, 22831-22840.
- Watkins, B.A., D.D. Parrish, S. Buhr, R.B. Norton, M. Trainer, J.E. Lee, and F.C. Fehsenfeld, (1995b) Factors affecting the concentration of gas phase hydrogen peroxide during the summer at Kinterbush, Alabama, *J. Geophys. Res* 100, 22841-22851.
- Weinstein-Lloyd, J., P.H. Daum, L.J. Nunnermacker, J.H. Lee, and L.I. Kleinman (1996). Measurement of peroxides and related species in the 1993 North Atlantic Regional Experiment. *J. Geophys. Res.* 101, 29,081-29,090.
- Weinstein-Lloyd, J.B., J.H. Lee, P.H. Daum, L. Kleinman, L.J. Nunnermacker, S.R. Springston, L. Newman (1998) Measurements of peroxides and related species in the 1995 SOS Nashville study, *J. Geophys. Res.*, 103, 22,361-22,373.
- Weller, R. and O. Shrems (1993). H₂O₂ in the marine troposphere and seawater of the Atlantic Ocean. *Geophys. Res. Lett.* 20, 125-128.
- Zhou, X. and Y.-N. Lee (1992). Aqueous solubility and reaction kinetics of hydroxymethyl hydroperoxide. *J. Phys. Chem.* 96, 265-272.